

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**RECEIVED**  
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Applicant: Yin S. Tang  
Title: Micro-Field Emitter Device For Flat Panel Display  
Serial No.: 10/786,766 Filing Date: February 24, 2004  
Examiner: Joseph L. Williams Group Art Unit: 2879  
Docket No.: M-15317-2P US Confirmation No.: 2855

Irvine, California  
August 2, 2005Via Facsimile to (571) 273-8300

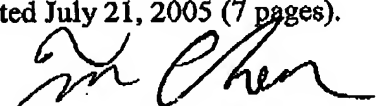
Mail Stop AMENDMENT  
COMMISSIONER FOR PATENTS  
P.O. Box 1450  
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I hereby certify that the following documents are being facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below:

- 1) This Transmittal;
- 2) Amendment Transmittal; and
- 3) Response to Office Action dated July 21, 2005 (7 pages).

Dated: August 2, 2005

  
Tom Chen  
Reg. No. 42,406Number of pages (including this sheet): 9

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**AUG 02 2005**

August 2, 2005

Mail Stop Amendment  
Commissioner For Patents  
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Applicant(s): Yin S. Tang  
Title: Method of Making Micro-Field Emitter Device for Flat Panel Display  
Serial No.: 10/786,766 Filing Date: February 24, 2004  
Examiner: Joseph L. Williams Group Art Unit: 2879  
Docket No.: M-15317-2P US Confirmation No. 2855

Irvine, California  
August 2, 2005

Dear Sir:

Transmitted herewith are the following documents in the above-identified application:

- (1) This Transmittal Letter;
- (2) Response to Office Action dated July 21, 2005 (7 pages).

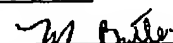
**CLAIMS AS AMENDED**

	Claims Remaining <u>After Amendment</u>		Highest No. Previously <u>Paid For</u>		Present <u>Extra</u>		<u>Rate</u>		<u>Additional Fee</u>
Total Claims	13	Minus	24	=	0	x	\$25.00	\$	0
Ind. Claims	1	Minus	3	=	0	x	\$100.00	\$	0


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August 2, 2005.

  
Monique M. Butler

Respectfully submitted,

  
Tom Chen  
Attorney for Applicant(s)  
Reg. No. 42,406

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Yin S. Tang  
Title: Method of Making Micro-Field Emitter Device for Flat Panel Display  
(as amended)  
Serial No.: 10/786,766 Filing Date: February 24, 2004  
Examiner: Joseph L. Williams Group Art Unit: 2879  
Docket No.: M-15317-2P US Confirmation No. 2855

Irvine, California  
August 2, 2005

Mail Stop Amendment  
Commissioner for Patents  
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RESPONSE TO OFFICE ACTION

Dear Sir:

In response to the Office Action dated July 21, 2005, Applicant submits the following amendments and remarks.

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IN THE TITLE

Please amend the title as follows:

Method of Making Micro-Field Emitter Device for Flat Panel Display

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IN THE CLAIMS

1. (Original) A method of forming a device including emitters comprising:  
exposing a first face of a sheet of bundled fiber segments to a reactive liquid to allow first ends of said fiber segments to react with said reactive liquid to remove material therefrom;  
depositing a coating material on said first face with said material removed; and  
exposing a second face of said sheet of bundled fiber segments to a reactive liquid to allow second ends of said fiber segments to react with said reactive liquid to remove material therefrom to expose said coating material.
2. (Original) The method of Claim 1, wherein said reactive liquid comprises a bath of HF acid.
3. (Currently amended) The method of Claim 1, wherein said reactive liquid comprises a spray of HF Acid acid.
4. (Original) The method of Claim 1, wherein said coating material comprises a low electron affinity material taken from the group consisting of  $\alpha$ -C, PdO<sub>x</sub>, Pd, Mo, Ni, Cr, Cu, Au, Pt, Ir, diamond and the like.
5. (Original) The method of Claim 1, wherein said exposing said first face of said sheet of bundled fiber segments to a reactive liquid comprises removing material from said first ends to form modified ends and cells, wherein depositing said coating material on said

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first face with said material removed comprises depositing said coating material on said modified ends and in said cells.

6. (Original) The method of Claim 1, further comprising forming a dielectric layer on said coating material.

7. (Original) The method of Claim 6, further comprising mounting a substrate on said dielectric layer.

8. (Original) The method of Claim 1, wherein said exposed coating material forms an electron emitter.

9. (Original) The method of Claim 1, further comprising:

providing a transparent substrate having a transparent conductive material deposited thereon;

forming a dielectric spacer on said transparent substrate;

patterning and etching selective areas of said dielectric spacer to form chambers for containing color phosphors; and

aligning said etched selective areas with said exposed coating material to form a field emitter device.

10. (Original) The method of Claim 9, wherein a gate electrode is formed on said dielectric spacer.

11. (Original) The method of Claim 9, further comprising:

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depositing a transparent conductive material on said transparent substrate, and patterning said transparent conductive material.

12. (Original) The method of Claim 9, further comprising:

sealing said field emitter device after pumping said field emitter device into vacuum.

13. (Original) The method of Claim 1, wherein a gate electrode layer is deposited and patterned on the second face of said sheet of bundled fiber segments.

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REMARKS

Claims 1-13 are pending in the present application. Claims 1-13 are allowed.

Applicant thanks the Examiner for the allowance of the claims. The Examiner has requested a new title and a change from "Acid" to "acid" in claim 3.

The title has been changed to "Method of Making Micro-Field Emitter Device for Flat Panel Display" to more accurately describe the invention as recited in the claims. Claim 3 has been amended as suggested by the Examiner.

Accordingly, Applicant believes the application is now in condition for allowance.

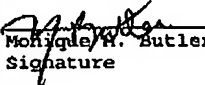
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CONCLUSION

For the foregoing reasons, Applicant believes pending claims 1-13 are allowable, and a notice of allowance is respectfully requested. If the Examiner has any questions regarding the application, the Examiner is invited to call the undersigned Attorney at (949) 752-7040.

Certification of Facsimile Transmission	
I hereby certify that this paper is being facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below.	
 Monique H. Butler Signature	August 2, 2005 Date of

Respectfully submitted,



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Attorney for Applicants  
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